



TO MAGNIFICO RETTORE
OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE A010

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a fellowship at **Dipartimento di Bioscienze**

Scientist- in charge: Professor Nardini Marco

Camilla Cattaneo

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Cattaneo
Name	Camilla

PRESENT OCCUPATION

Appointment	Structure
Research Fellow	University of Milan

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
PhD	Molecular and Regenerative Medicine	University of Modena and Reggio Emilia	2023
Master's degree	Biology applied to research in biomedicine (LM-6)	University of Milan	2019
Bachelor's degree	Biology (L-13)	University of Milan	2017

FOREIGN LANGUAGES

Languages	level of knowledge
Italian	Mother tongue
English	C1
Spanish	A2

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2024	Research Fellowship at the University of Milan
2023	Research Fellowship entitled "Gene editing customizzato di cellule staminali epidermiche"



	indotte per la terapia genica di malattie genetiche degli epiteli squamosi" (Holo-GT), ERC project
2019	PhD Fellowship in "Molecular and Regenerative medicine" at University of Modena and Reggio Emilia

TRAINING OR RESEARCH ACTIVITY

Education and training:

2019-2023 PhD in "Molecular and Regenerative Medicine" (XXXV cycle), University of Modena and Reggio Emilia, Centre for Regenerative medicine "Stefano Ferrari", Italy.

Thesis: Allele-specific gene editing of a *de novo* dominant mutation causing Epidermolysis Bullosa Simplex

Supervisor: Professor Michele De Luca

CFU obtained through teaching activities, seminars, congress and research activity: 180

Vote: cum laude

2017-2019 Master's degree in "Biology applied to research in biomedicine", University of Milan, Italy.

Thesis: Genome editing of NF-YA exon 3 in a breast cancer cell line

Supervisor: Professor Roberto Mantovani

Vote: 110/110L

2014-2017: Bachelor's degree in Biology, University of Milan, Italy.

Thesis: Molecular approaches for the study of oncosuppressor and their role in neoplastic transformation prevention

Supervisor: Professor Federica Marini

Vote: 106/110

Tutoring:

Tutor in the internship of Master's degree students both at University of Modena and Reggio Emilia and at University of Milan.

Congress, Training courses, workshops and webinars:

- **07/2019:** Seminar "QX200™ Droplet Digital™ PCR system and advanced applications"
- **11/2019:** Training course for PhD students and Research Fellows
- **12/2019:** Training course in "Confocal microscopy techniques applied to biological research"
- **04/2020-06/2020:** Training course in "Struttura dei target biologici e medicina di precisione"
- **04/2020:** Congress ISSCR 2020 (online)
- **01/2020:** Training course in "Repositioning natural products in drug discovery"



- **05/2020-06/2020:** ESGCT eschool (online)
- **05/2020:** Webinar “Accelerating gene editing research using the power of flow cytometry”
- **05/2020:** Webinar “Validating single-cell RNAseq results with Milo and RNA-scope”
- **10/2020:** Training course in Computational biology
- **10/2020:** Congress ESGCT (online)
- **10/2021:** Congress Synthego World CRISPR Day (online)
- **09/2021:** Congress DEBRA international Congress (online)
- **05/2022-07/2022:** Training course in “Organic biosensors for health and life science”
- **06/2022:** Training course in GCP released by “Holostem Therapie Avanzate S.r.l.”

PROJECT ACTIVITY

Year	Project
2024	<p><u>Research Fellow at University of Milan</u> - Study of the role of NF-YA through Inducible Degron system mediated inactivation.</p> <p>Molecular Biology techniques: gene editing (SpCas9), recombineering, transfections, cloning techniques, western blot, Immunofluorescence, DNA/RNA and protein extraction, RT-PCR, ChIP-seq.</p> <p>Cellular biology techniques: cell lines culture (HeLa, SUM159PT, T47D, HS746T, AGS), functional assays (growth curve, transwell assay, scratch assay, colony assay), clonal analysis</p>
2023	<p><u>Research Fellow at University of Modena and Reggio Emilia</u> - Identification and engineering of Cas9/Cas12 orthologs to target dominant forms of Epidermolysis Bullosa.</p> <p>Molecular biology techniques: gene editing (SpCas9, AcCas12a, AcCas12a-RVR and its mutants), cloning techniques, transfections, mutagenesis, DNA/RNA and protein extractions, cytofluorimetry.</p>
2019-2023	<p><u>PhD at University of Modena and Reggio Emilia</u> - Employment of the CRISPR/Cas9 system to knock-down the dominant negative effect of a mutant allele in an Epidermolysis Bullosa Simplex de novo case.</p> <p>Molecular biology techniques: gene editing (SpCas9), cloning techniques, viral vectors generation (IDLV, lentiviral vectors), transductions, transfections, mutagenesis, DNA/RNA and protein extractions, ddPCR, NGS, Immunofluorescence, cytofluorimetry.</p> <p>Cellular biology techniques: cell lines culture (HEK293T), murine fibroblast culture, primary keratinocytes culture (Derived both from EB patients and healthy donors), lifespan, functional assays (heat-shock, dispase assays), phenotypic and genotypic characterization, clonal analysis.</p>
2018-2019	<p><u>Master's thesis intern at University of Milan</u> - Study of the role of NF-YA isoforms in breast Claudin^{low} cell lines and characterization of engineered Claudin^{low} cells metastatic potential.</p> <p>Molecular Biology techniques: gene editing (SpCas9, Cas9-D10A Nickase), transfections, cloning techniques, western blot, Immunofluorescence, DNA/RNA and protein extraction, RT-PCR.</p> <p>Cellular biology techniques: cell lines culture (MCF-10A, BT549), lifespan, functional assays (growth curve, transwell assay, scratch assay, colony assay).</p>



2017	<u>Bachelor's thesis intern at the University of Milan</u> - Study of the role and interaction of 53BP1/Rad9 and FANCP/Slx4 in procaryotes (E.coli) and eukaryotes (S.cerevisiae, U2OS cells) models.
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CONGRESSES AND SEMINARS

Date	Title	Place
30/05/2022-01/06/2022	Deciphering Stem Cell Fate by single cell, multiomic and Inference Approaches Poster: "Allele-specific gene editing approach for a dominant form of Epidermolysis Bullosa Simplex" Authors: Cattaneo C., Latella M.C., Enzo E., De Rosa L., De Luca M.	Turin, Italy
10/10/2022-17/10/2022	29th Congress of European Society of Gene and Cell Therapy Poster: "Allele-specific gene editing approach for a dominant form of Epidermolysis Bullosa Simplex" Authors: Cattaneo C., Latella M.C., Enzo E., De Rosa L., De Luca M.	Edinburg, UK
06/07/2022-09/06/2022	First World Congress of Rare Skin Disease Poster: "Allele-specific CRISPR/Cas9 editing of a dominant form of Epidermolysis Bullosa Simplex" Autori: Cattaneo C., Latella M.C., Enzo E., De Rosa L., De Luca M.	Paris, France

PUBLICATIONS

Articles
Cattaneo C, Enzo E, De Rosa L, Sercia L, Consiglio F, Forcato M, Bicciato S, Paiardini A, Basso G, Tagliafico E, Paganelli A, Fiorentini C, Magnoni C, Latella MC, De Luca M. Allele-specific CRISPR-Cas9 editing of dominant epidermolysis bullosa simplex in human epidermal stem cells. Mol Ther. 2024 Feb 7;32(2):372-383. doi: 10.1016/j.ymthe.2023.11.027. Epub 2023 Dec 5. PMID: 38053334; PMCID: PMC10861943. (First author)
Londero M, Gallo A, Cattaneo C, Ghilardi A, Ronzio M, Del Giacco L, Mantovani R, Dolfini D. NF-YA1 drives EMT in Claudinlow tumours. Cell Death Dis. 2023 Jan 28;14(1):65. doi: 10.1038/s41419-023-05591-9. PMID: 36707502; PMCID: PMC9883497.
Enzo E, Cattaneo C, Consiglio F, Polito MP, Bondanza S, De Luca M. Clonal analysis of human clonogenic keratinocytes. Methods Cell Biol. 2022;170:101-116.doi: 10.1016/bs.mcb.2022.02.009. Epub 2022 Apr 18. PMID: 35811094. (First author)

OTHER INFORMATION

2022-2023: European Society of Gene and Cell Therapy member

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.



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Place and date: Milan, 18/12/2024